



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

FOR IMMEDIATE RELEASE

Wednesday, May 7, 2014

Contact:

Lilly Wyatt

Public Information & Media Relations

916-845-8445

Lilly.Wyatt@CalOES.ca.gov

California Leading Development of Earthquake Early Warning System

Vallejo – No one can predict earthquakes, but with science and technology, people can be given enough warning before the shaking begins and that warning could potentially save lives and property.

Wednesday morning, officials from all levels of government, universities and the private sector organizations gathered at the California Maritime Academy in Vallejo to discuss plans and continue to develop, brainstorm funding resources and implement the California Earthquake Early Warning System ([CEEWS](#)).

The earthquake early warning system stakeholder informational briefing and workshop was held at the California Maritime Academy in Vallejo on May 7, 2014.

“The early warning system is on its way, we’ve accomplished more in the last eight months than in the last eight years,” said Cal OES Director Mark Ghilarucci.

“The collaboration that we’re getting from every partner is great, we have a deadline of two years and we’re focused on getting the earthquake early warning system in place and working in California.”

Today’s meeting was the first of two workshops where participants received a briefing on the concept of earthquake early warning and outline a strategy for implementing the proposed system in the state, the second workshop will be held in Southern California in on May 19th.

Currently, [Shake Alert](#) – a prototype of the early warning system – has been in operation since 2012 with focal points being Los Angeles and the Bay Area. In fact, L.A. County Fire and the L.A. City Office of Emergency Services received a warning before the La Habra earthquake this past March.

Click [here](#) to see and hear a simulated earthquake early warning generated by ShakeAlert.

Sen. Alex Padilla authored the Earthquake Early Warning (EEW) Bill (SB 135) that passed last year authorizing the creation of the system, including a central brain that could send out an emergency alert.

“California has the opportunity to lead the way for the rest of the nation to have a reliable early warning system that could potentially save millions of lives,” said California State Senator Alex Padilla.

The objective of earthquake early warning is to rapidly detect the initiation of an earthquake, estimate the level of ground shaking, and issue a warning before significant shaking starts. Studies of earthquake

early warning methods in California have shown that the warning time would range from a few seconds to a few tens of seconds, depending on the distance to the epicenter of the earthquake. This is enough time to slow and stop trains and taxiing planes, to prevent cars from entering bridges and tunnels, to move away from dangerous machines or chemicals in work environments and to take cover under a desk, or to automatically shut down and isolate industrial systems. Taking such actions before shaking starts can reduce damage and casualties during an earthquake.

“We’re trying to get this system working now and if that happens we could be the first country in the world that implements the system before the big one,” said UC Berkeley Seismic Lab Director Richard Allen. “All other countries have established their systems after they experienced major quakes.”

Earthquake early warning systems are now either operational or are being implemented in several countries. Mexico City has had a system since 1991. Japan has had a nationwide public warning system since 2007. There are also systems in Istanbul, Turkey, Bucharest, Romania, China, Italy, and Taiwan. All of these systems are tailor made for the local system of faults and thus cannot easily be adapted to California.

In the United States, USGS is funding research into earthquake early warning in California with several research partners: UC Berkeley, Caltech, the Southern California Earthquake Center (SCEC) and Eidgenössische Technische Hochschule (ETH), Zürich. With these partners, and by leveraging federal and state investments already made in the Advanced National Seismic System to monitor earthquake activity, an EEW system in the US administered by the USGS is a realistic expectation of leaders and the community. By being part of an existing, active seismic network, the early warning system will be tested and monitored daily through existing operations. Additionally, building on the existing National System means all the infrastructure improvements for EEW will also result in improved information for emergency response and aftershock forecasting.

In [this video](#), you can see how the earthquake early warning worked in Mexico City live in a newscast. The news anchor tells viewers that at 9:27 a.m. a seismic alert went off, triggering a shrieking whine on the broadcast. Then, more than a minute after the first warning, shaking rolls through the television studio, strong enough to knock the news anchor from his stance.

For more information visit:

- [Cal OES Earthquake and Tsunami Program](#)
- [CalTech](#)
- [CISN Shake Alert](#)